

WHAT IS CLAIMED IS:

1. A rotating electric machine comprising:

a plurality of ventilating passages formed between a stator frame and a stator iron core;

a cooler which cools a coolant is provided at least in one ventilating passage, communicating with a central portion of said stator iron core, of said plurality of ventilating passages; and

a ventilating circuit in which the coolant cooled by said cooler is allowed to flow to said central portion of said stator iron core in a direction from an outer peripheral side to an inner peripheral side of said stator iron core via said at least one ventilating passage which communicates with said central portion of said stator iron core.

2. A rotating electric machine according to claim 1, further comprising a booster for boosting the coolant, the ventilating circuit enabling flow of the coolant which is boosted by the booster and cooled by said cooler.

3. A rotating electric machine according to claim 1, wherein the booster includes a fan.

4. A rotating electric machine comprising:

a plurality of ventilating passages formed between a stator frame and a stator iron core;

coolers which cool a coolant being provided in said

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plurality of said ventilating passages;

5 a ventilating circuit in which at least a portion of the  
coolant which is cooled by one of said coolers is further  
cooled by another of said coolers, and is allowed to flow to a  
central portion in an axial direction of said stator iron core  
in a direction from an outer peripheral side to an inner  
peripheral side of said stator iron core at least via one  
ventilating passage of said plurality of ventilating passage  
which communicates with said central portion in an axial  
10 direction of said stator iron core.

5. A rotating electric machine according to claim 4,  
further comprising a booster for boosting the coolant, the  
ventilating circuit enabling flow of the coolant which is  
boosted by the booster and cooled by said cooler.

15 6. A rotating electric machine according to claim 4,  
wherein the booster includes a fan.